

B-P-HYDROXYPHENYLETHYLAMINE - HYDROCHLORIDE ON *Trox* SP. (COLEOPTERA: SCARABAEIDAE)

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The enzyme, Tyrosinase, has been implicated in the darkening and hardening of the insect cuticle (Pryor, 1940). This enzyme is known to catalyze the oxidation of the amino-acid Tyrosine to 3, 4-dihydroxyphenylalanine. Pryor, Russell, and Todd (1946) reported upon the occurrence of Pro-catechine 3, 4-dihydroxyphenylacetic and 3, 4-dihydroxyphenyllactic acids in insects. The substances are derivable from 3, 4-dihydroxyphenylalanine, as is also Melanin.

Another pathway of 3, 4-dihydroxyphenylalanine metabolism is catalyzed by the enzyme 3, 4-dihydroxyphenylalanine decarboxylase, which has hitherto been reported only in animal tissues (Holtz and Credner, 1952). This leads to the formation of 3, 4-dihydroxyphenylethylamine or Hydroxytyrosine. This latter reaction could conceivably take place in the insects, if the 3, 4-dihydroxyphenylalanine decarboxylase were found to be present.

During the course of some studies on beetles associated with carrion, it was noted that a number of these beetles had small hexagonal white crystals firmly imbedded in the rough sculpturing of the elytra. They were particularly noticeable on the elytra of several specimens of *Trox* sp. These beetles feed on the dried skin of decayed animals, and because of their habits they are normally covered with sand, mud, and particles of organic material dried onto their bodies. Upon washing in hot water, a practice often necessary before identification, these specimens did not lose the crystals from their elytra. When examined more closely under a binocular microscope it was observed that the crystals were imbedded in the surface of the elytra. The only explanation of their presence is that they must have appeared there while the elytra were still soft.

Several other collections of beetles of this genus were examined and similar but fewer crystals were observed on their elytra. Of the 20 specimens collected, 14 had crystals imbedded in their elytra, from 10 to 20 crystals per beetle.

A few simple biochemical tests were performed, using a hot stage microscope, and the crystals were identified as B-p-hydroxyphenylethylamine-hydrochloride. The difficulty of working with such a small quantity and the lack of any of this substance in pure form to try a mixed melting point test introduces several possibilities of error. However, considering the tests run and the physical properties of the crystals, and also the fact that this substance is known to be an animal product (generally associated with decay, however), it seems reasonable to conclude that these crystals were correctly identified.

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UNUSUAL HOST RECORDS FOR *GYMNAETRON PASCUORUM*, *HEXARTHURUM ULKEI*, *CHALCODERMUS AENEUS*, AND *HYPERA NIGRIROSTRIS* (COLEOPTERA: CURCULIONIDAE).

Adults of *Gymnaetron pascuorum* (Gyllenhal) were found on the bark of *Picea pungens*, at Portland, Oregon, in 1960, by R. Witt, and adults were reared from the spikes of *Plantago lanceolata*, at 3 miles east of Aumsville, Oregon, in 1963, by E. A. Dickason. *G. pascuorum* is a European species introduced into the United States and is most commonly found in the eastern states breeding in *Plantago lanceolata*. I have also identified this weevil from tunnels of the "dogwood borer," *Thamnosphacia scitula* (Harris) (Lepidoptera: Aegeriidae), from McMinn Co., Tennessee, in 1962. *G. pascuorum* was previously reported as being associated with *Tenodera* sp. eggs (Orthoptera: Mantidae) by Gurney (1959, Proc. Ent. Soc. Washington 61:24).

Many larvae of *Chalcodermus aeneus* Boheman were found feeding in carrot tubers, and adults were found in a field adjacent to a field of carrots in Weslaco, Texas, in March 1961. *C. aeneus*, known as the 'cowpea curculio,' breeds in the pods of cowpeas and related legumes. The specimens were received from the Campbell Soup Research Farm, Riverton, New Jersey.

Hypera nigrirostris (F.), commonly known as the 'lesser clover leaf weevil,' was collected in Addison Co., Vermont, on birds-foot trefoil. Birds-foot trefoil, a legume belonging to the genus *Lotus*, is being grown in the New England states as a forage crop. The beetles were sent by the University of Vermont, and the accompanying letter stated that a 25-acre field was destroyed.

Hexarthrum ulkei Horn was found feeding in laminated shelves in a shoe store in Ahoskie, North Carolina, on Sept. 4, 1959. *H. ulkei* is usually found in old dry flooring, timbers, and beams. The specimens were received from D. L. Wray, Raleigh, North Carolina.—ROSE ELLA WARNER, Ent. Res. Div., A.R.S., U. S. Department of Agriculture, Washington, D. C.